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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,495	12/20/2004	Joachim Grupp	ICB0198	5568

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EXAMINER	
CHIEN, LUCY P	

ART UNIT	PAPER NUMBER
2871	

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06/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/518,495	GRUPP ET AL.	
	Examiner	Art Unit	
	LUCY P. CHIEN	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/15/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-32* is/are pending in the application.

4a) Of the above claim(s) *30 and 32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-29 and 31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12/20/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 14-17,19,20,31 are rejected under 35 U.S.C. 102(b) as being anticipated by Motai Atsushi (JP 56075624).

Regarding Claim 14,31,

Motai Atsushi discloses (Drawing 4) at least one transparent front substrate (11) whose top surface forms the front face of the cell; at least one back substrate (12) that may also be transparent or not, whose lower surface(12) forms the back face of said cell; a sealing frame (15) joining the front (11) and back substrates (12) and defining a volume for retaining an electro-optically or photo-electrically active medium in a sealed manner (liquid crystal, (a)); said front and back substrates including on their faces opposite each other at least one electrode each (13,14), these electrodes being intended to be connected by conductive paths (16) to an electrical power or control circuit and defining lateral electric contact zones, wherein the conductive paths (16) are each formed of a first part in contact with the electrodes at the level of the lateral electric contact zones, and a second part (16a) extending over the back surface of the cell, contact means (18a) arranged continuously or discontinuously over the edge, or the

back, or the edge and the back, of said cell forming the electrical junction between the first and second parts of the conductive paths (16).

Regarding Claim 15,

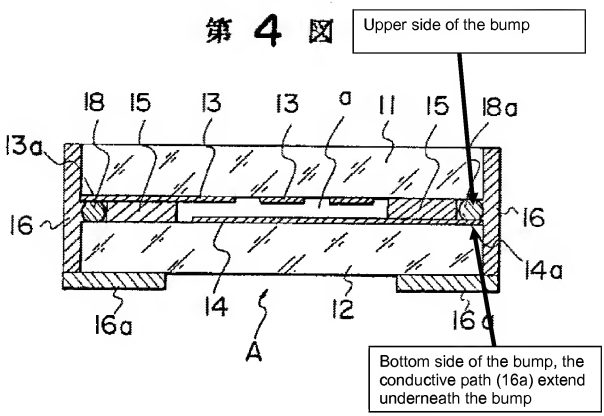
Motai Atsushi discloses (Drawing 4) wherein the contact means take the form of discrete bumps (lump of the first or second substrate).

Regarding Claim 16,

Motai Atsushi discloses (Drawing 4) wherein the first parts of the conductive paths (16) come into lateral contact with the conductive bumps (18a), whereas the second parts of the conductive paths can extend as far as the top of said bumps and cover said bumps and the bottom substrate (12) in whole or in part.

Regarding Claim 17,

Motai Atsushi discloses (Drawing 4) wherein the second parts of the conductive paths extend at least partially underneath the conductive bumps (see below).



Regarding Claim 19.

Motai Atsushi discloses (Drawing 4) wherein the cell includes a stack of (n) (1) individual cells, each of the individual cells being defined by two substrates belonging thereto.

Regarding Claim 20.

Motai Atsushi discloses (Drawing 4) wherein the cell includes (n+l) (1+1=2) two superposed substrates (upper and bottom substrate counts as two superposed substrates, these (n+l) substrates being joined in pairs by a sealing frame.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

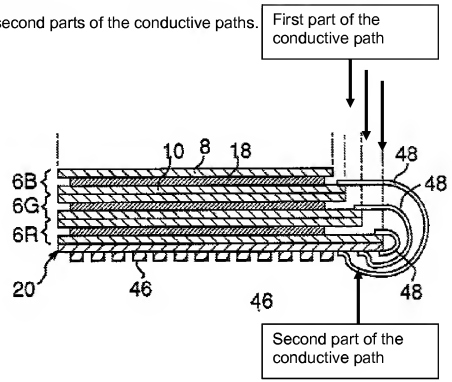
Claim 21,23,25 are rejected under 35 U.S.C. 102(e) as being anticipated by Mandai et al (US 20010015788).

Regarding Claim 21,

Mandai et al discloses (Fig. 1 and 4C) four superposed substrates (8,10) joined in pairs by sealing (16) frames which each define a sealed cavity for retaining liquid crystals (18); and a first sealing frame joining the substrates (16), while a second sealing frame joins the substrates and a third sealing frame joins the substrates, said substrates (8,10) including on their faces opposite each other at least one electrode (12,14) each, said electrodes being intended to be connected by conductive paths (480 to an electric control circuit and defining lateral electric contact zones, wherein the conductive paths (48) are each made up of a first part in contact with the electrodes at the level of the lateral electric contact zones (where 48 contacts the electrodes on the substrate), and a second part extending over the back surface of the cell (shown

below), contact means arranged continuously of said cell forming the electric junction between the first and the second parts of the conductive paths.

Fig.4C



Regarding Claim 23,25,

Mandai et al discloses (Fig. 8) wherein a power circuit or the control circuit (in housing 74) is mounted directly on the back of the liquid crystal panel cell (30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motai Atsushi (JP 56075624) in view of Kozuka et al (US 20010046021)

Motai Atsushi discloses everything as disclosed above.

Motai Tasushi does not disclose wherein the contact means take the form of a tape of anisotropic conductive material.

Kozuka et al discloses (Page 3, [0043] providing a reliable conductivity between the conductive members bonded by the anisotropic conductive adhesive.

It would have been obvious to one of ordinary skill in the art to modify Motai Tasushi's display to include Kozuka et al's contact means formed of an anisotropic conductive material motivated by the desire to provide a reliable connection between members (Page 3, [0043].

Claim 22,24,26 are rejected under 35 U.S.C. 103(a) as being anticipated by in view of Motai Atsushi (JP 56075624) in view of Kuroki et al (US 20020051102).

Motai Atsushi discloses everything as disclosed above.

Motai Tasushi does not disclose wherein the circuit is mounted on the back of the cell.

Kuroki et al discloses wherein the circuit is directly mounted on the back of the cell via a flexible conductive film (5) which is well known in the art to provide a thinner display.

It would have been obvious to one of ordinary skill in the art to modify Motai Atsushi to include Kuroki's circuit mounted on the back of the cell motivated by the desire to provide a thinner display.

Claim 27 is rejected under 35 U.S.C. 103(a) as being anticipated by in view of Mandai et al (US 20010015788) in view of Kuroki et al (US 20020051102).

Mandai et al discloses everything as disclosed above.

Mandai et al does not disclose wherein the circuit is mounted on the back of the cell.

Kuroki et al discloses wherein the circuit is directly mounted on the back of the cell via a flexible conductive film (5) which is well known in the art to provide a thinner display.

It would have been obvious to one of ordinary skill in the art to modify Mandai et al to include Kuroki et al's circuit mounted on the back of the cell motivated by the desire to provide a thinner display.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motai Atsushi (JP 56075624) in view of Wada (US 20020019069).

Motai Atsushi discloses everything as disclosed above.

Motai Atsushi does not disclose wherein a transparent or coloured absorbent layer for relaxing thermo-mechanical stresses and able to resist a chemical etch bath is deposited on the back of the cell.

Wada discloses a stress relieving absorbent layer (Fig. 9, (20)) to relieve stress due to thermal expansion between the circuit board and the chip.

It would have been obvious to one of ordinary skill in the art to modify Motai Atsushi's display to include an absorbent layer taught by Wada motivated by the desire to relieve stress due to thermal expansion between the circuit board and the chip (Page 8, [0138]).

Claim 29 is rejected under 35 U.S.C. 103(a) as being anticipated by in view of Mandai et al (US 20010015788) in view of Wada (US 20020019069).

Mandai et al discloses everything as disclosed above.

Mandai et al does not disclose wherein a transparent or coloured absorbent layer for relaxing thermo-mechanical stresses and able to resist a chemical etch bath is deposited on the back of the cell.

Wada discloses a stress relieving absorbent layer (Fig. 9, (20)) to relieve stress due to thermal expansion between the circuit board and the chip.

It would have been obvious to one of ordinary skill in the art to modify Mandai et al's display to include an absorbent layer taught by Wada motivated by the desire to relieve stress due to thermal expansion between the circuit board and the chip (Page 8, [0138]).

Response to Arguments

Applicant's arguments filed 2/15/2008 have been fully considered but they are not persuasive.

Applicant's arguments that "The Atsushi Document does not teach or even suggest, "contact means arranged continuously or discontinuously over the edge, or the back, or the edge and the back, of said cell forming the electrical junction between the first and second parts of the conductive paths"". Atsushi Document discloses the contact means (18a) discontinuously over the back (the back can be construed closest to the liquid crystal) And (18a) contacts (16), so there is an electrical junction between the first and second part of the conductive paths (16,16a).

Applicants arguments that "The Mandai Publication does not teach, or even suggest, "contact means arranged..over the edge, or the back, or the edge and the back, of said cell" The Mandai Publication discloses the contact means (broad limitation that can be interpreted as being where (48) contacts (10) arranged discontinuously over the edge or on the back (where (48) contacts (10) can be considered the back). The conductive paths contact electrodes on the substrate, therefore there is a lateral electric contact zone ([0060]).

Therefore the rejection is maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUCY P. CHIEN whose telephone number is (571)272-8579. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lucy P Chien
Examiner
Art Unit 2871

/David Nelms/

Supervisory Patent Examiner, Art Unit 2871